What is claimed is:

1. A microhole array with multi-holes for inserting optical fibers therethrough, comprising: a plurality of tubular sections with said holes; and a body base material disposed close to the whole or partial periphery surface of the tubular sections, wherein the tubular sections are made of a resin and the body base material is made of ceramic, glass, metal or their composite.

2. The microhole array as set forth in Claim 1, wherein the tubular sections are made of a composite material containing a resin and an inorganic filler in place of the resin.

3. The microhole array as set forth in Claim 1, wherein the thermal expansion coefficient of the ceramic, glass, metal or their composite making the body base material is equal to or lower than 12 ppm/°C.

4. The microhole array as set forth in Claim 2, wherein the resin is epoxy resin and the inorganic filler is ceramic or glass, 10 ppm/°C or less in thermal expansion coefficient.

5. The microhole array as set forth in Claim 4, wherein the ceramic having, 10 ppm/°C or less in thermal expansion coefficient, is amorphous silica.

6. The microhole array as set forth in Claim 5, wherein the average grain size of the amorphous silica is 20 μm or smaller.

7. The microhole array as set forth in Claim 1, wherein the thermal expansion coefficient of the tubular sections ranges from 5 to 60 ppm/°C.

8. The microhole array as set forth in Claim 1, wherein the tubular sections are made by casting a resin or a composite material containing a resin and an inorganic filler.

9. The microhole array as set forth in Claim 8, wherein the viscosity of a resin or a composite material containing a resin and an inorganic filler is 10 Pa·s or lower during the casting.

10. The microhole array as set forth in Claim 1, wherein ceramic, glass, metal or their composite making the body base material are aluminum nitride, mullite, silicon, alumina, silicon nitride, mica, wollastonite, silicon carbide, amorphous silica, borosilicate glass, E glass, soda lime glass, nickel steel, tungsten, molybdenum, stellite, stainless steel, carbon steel, super hard alloy or their composite.

11. The microhole array as set forth in Claim 1, wherein the vicinity of at least one opening face of a hole has a taper portion with the diameter of said hole gradually increasing toward the opening of the hole and the taper angle of the taper portion ranges from 15 to 75°.

12. The microhole array as set forth in Claim 11, wherein large-diameter holes and small-diameter holes are connected at the taper portion.

13. An optical fiber array with optical fibers inserted into/fixed to multi-holes made in a microhole array, said microhole array comprising:

a plurality of tubular sections with holes; and a body base material disposed close to the whole or partial periphery surface of the tubular sections, wherein the tubular sections are made of a resin and the body base material is made of a ceramic, glass, a metal or their composite.

14. A connector with two or more guide holes for inserting guide pins therethrough which is used to butt the end of an optical fiber against that of another before the connection, said guide holes being provided at a microhole array comprising: a plurality of tubular sections with holes for inserting optical fibers therethrough; and a body base material disposed close to the whole or partial periphery surface of the tubular sections wherein the tubular sections

are made of a resin and the body base material is made of ceramic, glass, metal or their composite, and moreover two or more tubular sections made of a resin being provided in parallel with multi-holes for inserting optical fibers therethrough.

15. The connector as set forth in Claim 14, wherein the tubular sections are preferably made of a composite material containing a resin and an inorganic filler in place of the resin.

16. The connector as set forth in Claim 15, wherein the resin is epoxy resin and the inorganic filler is a ceramic, 10 ppm/°C or less in thermal expansion coefficient.

17. The connector as set forth in Claim 14, wherein the thermal expansion coefficient of the tubular sections ranges from 5 to 60 ppm/°C.

18. The connector as set forth in Claim 14, wherein the tubular sections are made by casting a resin or a composite material containing a resin and an inorganic filler.

19. The connector as set forth in Claim 18, wherein the viscosity of a resin or a composite material containing a resin and an inorganic filler is 10 Pa·s or lower during the casting.

20. A method for manufacturing a microhole array with multi-holes for inserting optical fibers therethrough, comprising the steps of: disposing a first mold and a second mold having a plurality of guide holes so as to oppose the opening faces of the relevant guide holes against each other; disposing a body base material having a plurality of primary holes between the first and second molds disposed and simultaneously inserting gauge pins into guide holes of the first mold, primary holes of the body base material and guide holes of the second mold; next pouring a molding material into the gap between the first mold and the body base material and filling the molding material into the gaps between the gauge pins and the primary holes by reducing the pressure in the gap between the second mold and the body base material; extracting the gauge pins after curing said filled molding material and at the same time releasing the body base material from the molds to obtain a release product; and removing the surplus cured molding material from the obtained release product.

21. The method for manufacturing a microhole array as set forth in Claim 20, wherein a molding material, 10 Pa·s or less in viscosity, is poured.